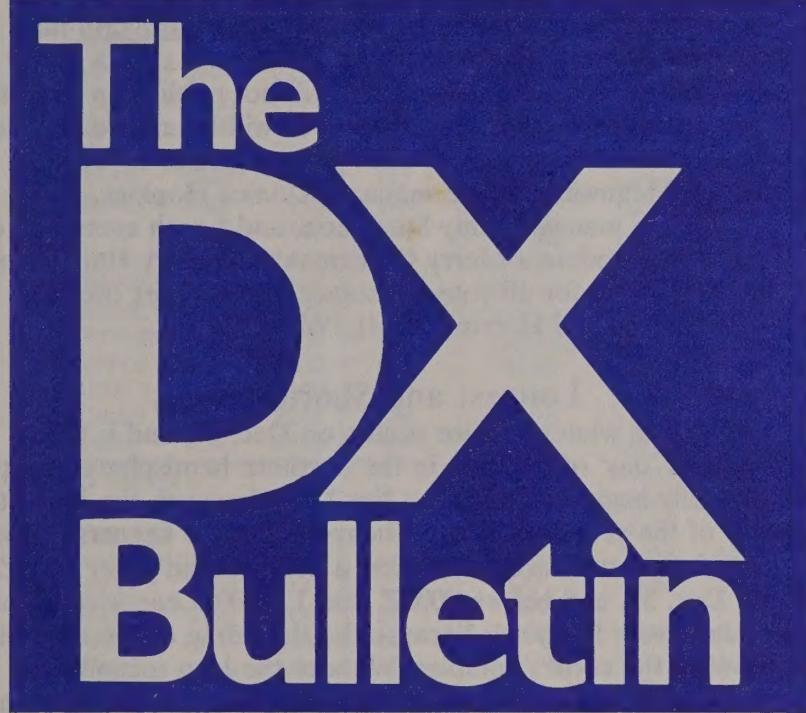


Laos - XW Zoli and George continue to grind out the QSOs as **XW8CW** and **XW8DX**. They had made more than 20,000 contacts by Dec. 18. They have decided to stay in Laos until Dec. 27, thus eliminating any possibility of a Spratly operation. The operation is about 8 km from the **XW8KPL** station, which they both worked on the air and visited last week. Among the places they have been worked are 14025 kHz at 00-0100Z, 21025 or 035 kHz at 0030-02300Z and 1430-1800Z, 14195 kHz at 1630-1800Z, and 21235 kHz at 0130-0400Z and 14-1500Z. They don't have enough room to put up an 80-meter antenna, and report poor conditions on 10 meters. QSL addresses are in Issue 517. **XW8KPL** has been on 14165 kHz at 12-1300Z Saturday, as well as 14238 kHz. Sundays try 21335 kHz at 1400Z, or 21305 kHz at 0000Z. QSL direct.

Edited by Chod Harris VP2ML



Laos - XW Five Japanese operators, led by JH1AJT, plan to operate from this popular spot Dec. 22-29, and have requested the call **XW8KPV**. Transmitting frequencies are 14003, 21003, and 28003 kHz on CW, and 14230, 21330, and 28530 kHz on SSB. 80, 40, and new-band operation are possible. Listening frequencies will be announced. They plan to set up a second station to remain in Laos. QSL via JH1AJT.

Maldives - 8Q Carlo Amorati I4ALU will be active as **8Q7BX** Dec. 29-Jan. 7, on CW only, 10-40 meters. Watch 10-25 kHz up on 10-20 meters, and 7000-05 kHz, listening up 2 kHz. No tail-enders nor partial calls, please. QSL home call, with US\$1 or IRCs. Bureau okay.

December 22, 1989

Shortly Noted

- **Conway Reef 3D and Banaba (Ocean) Island T33** will be added to the DXCC Countries list as of March 1, 1990. Don't send in cards before that date. The ARRL Awards Committee voted unanimously to accept the DX Advisory Committee's recommendation for the two New Ones.
- **3D2XR** is Mats SM7PKK on Rotuma. He plans to stay about one month, depending on transportation.
- **XT2KG** should be QRT by now, as the Colvins move on to the next spot. They have been favoring: 7002 kHz at 01-0200Z, 14006 0230Z, 21006 0230-2200Z, and 28006 1000Z and 14-1800Z.
- **1AØKM** may be on Dec. 23-24, for 24 hours, according to IØDUD. No official word, but keep an ear out.
- **HL5BDS** wraps up his South Shetland operation at the end of January. He's been very active on CW. QSL HL1ASS.
- **UH8YP** from rare Oblast 046 is often in UM8NU's net on 14195 kHz at 0230Z Saturdays, and UA9AB's net on 14261 kHz at 0300Z Sundays.
- **SM6DKU/C56** will be active to the end of the year on CW and SSB, and may be on 6 meters. QSL home call.
- **EK9JG** will be active until Dec. 27 from Oblasts 162 and 163, with operators from the U9J Club. 1835, 3520, 7010, 14020, 21020, and 28020 kHz on CW, and 1865, 3620, 7050, 14120, 21170, and 28220 kHz on SSB. QSL to Vitalij Grebennikov UA9JAT, Box 1, Surgut 14, 626400 USSR.
- **OY9JD** is on most days at 28489 or 21289 kHz at 1600Z.
- **JY9LC** on Nov. 20 was a pirate. Jack Sproat W4LCL was in the Philippines at the time.
- **J6LRV**, operated by K6GXO, should be confirmed via a new address: Box 901846, Palmdale CA 93590. Use of the *Callbook* address will delay response.
- **ES1-Ø** is the new prefix block for Estonia stations, replacing the UR block. Effective date is Jan. 1, 1990.
- **SSB Net** check-ins: 7160 kHz: KX6OI LY2ZZ EA8ACH; 14160: 5N9FEA TU2JL 3X1SG; 14165: XW8PKL; 14222: LU1ZA UJ8JMM XT2KG; 14227: VS6WS HZ1AB 5Z4BH KHØAC 3B9FR FK8FA; 14256: TT8GA VP8BUB FT4ZE JX9CAA 3DAØAH 9N1MM; 21335: TU2UI AH6HQ/TJ XW8KPL FR4FD TJ1MW ZD9BV AP2JZB XT2PS JW9WDA 5V7DP 9J2BO.
- **6 Meters:** The drop in flux has eliminated the daily worldwide openings, but east coast stations continue to report working Europe and the Caribbean. Countries on recently include: Portugal, Ireland, France, England, Northern Ireland, Jersey, Galapagos, Haiti, Hawaii, Netherlands, San Marino, Iceland, and Mexico.
- **Islands On The Air:** U1ZA is on Kildin Is. (EU-82). Try 14002 kHz at 0245Z. QSL Box 1087, Murmansk 57. LU1ZA is in the South Orkneys (AN-08). QSL GACW or LU2CN. R1O/RA3SS is on Novaya Zemlya (EU-35). QSL via RA3SD. RA1QQ/RAØQ is on Bear Island (AS-22). Try 21253 kHz at 0315Z. JI1DUQ is on Izu Shiohito Island (AS-08). Try the IOTA net on 21260 kHz at 2300Z Saturday. LA6RGA is in the Kvaloy group (EU-44). Try 21201 kHz at 2100Z. And Bernhard DL2GAC is off for another 5-month IOTA DXpedition early next year. Details in Issue 519.

Propagation

Forecast and Historical Data

Day	Forecast	27 Days Before	55 Days Before						
December 1989	Date	Flux A	K	Date	Flux A	K			
22	Above Normal	11/25	221	01/04	1	10/28	174	06/10	2
23	Above Normal	11/26	238	08/08	3	10/29	174	09/10	3
24	High Normal	11/27	246	12/14	2	10/30	188	18/21	3
25	Low Normal	11/28	235	22/23	3	10/31	206	08/13	3
26	High Normal	11/29	224	13/15	3	11/01	211	07/08	2
27	High Normal	11/30	249	13/20	3	11/02	215	13/15	3
28	Below Normal	12/01	235	30/35	6	11/03	219	15/23	1
29	High Normal	12/02	220	15/20	2	11/04	226	22/27	3
30	High Normal	12/03	212	18/19	3	11/05	236	12/17	3
31	Low Normal	12/04	216	21/25	1	11/06	256	08/11	2
<u>January 1990</u>									
01	High Normal	12/05	214	09/11	1	11/07	227	18/17	3

Propagation Watch

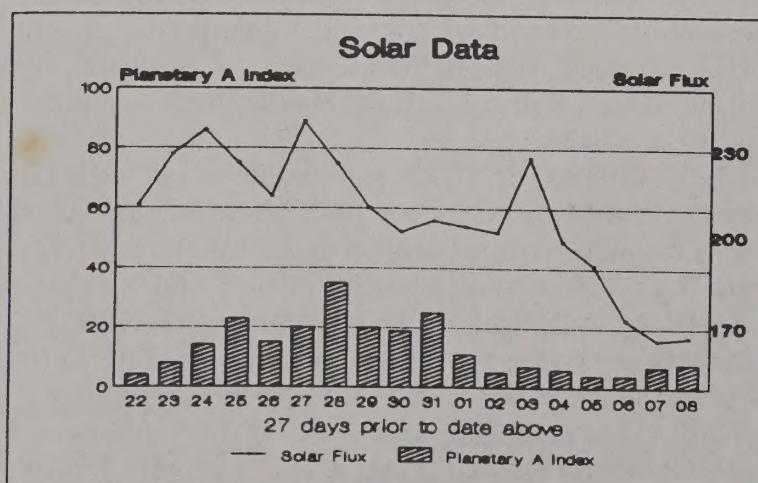
The solar flux bottomed out at 166 on December 15, before starting to increase. As the more active side of the sun swings in our direction, look for further increases, with a peak around Christmas. The chance of a major flare will be slightly higher over the next week, but remains low.

The flux will drop as the year comes to an end. If conditions repeat this solar revolution, look for an extremely quiet geomagnetic conditions the first week of the new year, ideal conditions for the 3Y5X Bouvet operation. At this stage in the sunspot cycle, a new, very active sunspot group can appear at any time, and produce band-destroying Class X flares. However, nothing on the sun over the past two months suggests that this is likely.

Meanwhile the very quiet geomagnetic field, combined with seasonal effects, has given 80-meter DXers some fine band openings, including the long path. Check 40 and 80 meters from about an hour before local sunrise, to a half hour after. This opening is at its best over the next month or so; don't miss it. The polar path on the low bands has been rather poor, compared to the long path. Polar cap absorption is to blame.

The high bands continue to provide excellent daytime openings, and 20 meters remains open far into the night. The well-rounded DXer should find one or more bands open to DX at any hour of the day or night.

As the year ends, Japanese teams are activating Laos and Vietnam, a major Bouvet operation is due on any day, the solar flux is high, and geomagnetic activity is very low. DXers know that yes, there is a Santa Claus!



■ Armenia	UG6GAW	7006	1300Z
■ Ascension Island	ZD8JV	14024	0000Z
■ Belize	V31BB	1832	0300Z
■ China	BZ1OK	21020	0045Z
■ Dodecanese	SV5TS	28525	1400Z
■ India	VU2IOC	14017	LP 1230Z
■ Juan Fernandez	CE0OGZ	14020	0330Z
■ Lebanon	OD5VT	3799	2230Z
■ Marshall Islands	V73AZ	1834	0700Z
■ New Caledonia	FK8FS	40M	CW 1130Z
■ Pakistan	AP2MC	20M	CW 0300Z
■ Paraguay	ZP6XDW	14026	0430Z
■ Saudi Arabia	HZ1AB	3505	0200Z
■ Saudi Arabia	HZ1AB	3793	1430Z
■ South Orkneys	LU1ZA	14005	2330-0100Z
■ Sri Lanka	4S7CF	14005	0030Z
■ Sri Lanka	4S7WP	14020	0100Z
■ Sri Lanka	4S7EA	14006	0045Z
■ Taiwan	BV2DA	28010	2330-0130Z
■ Taiwan	BV2DA	20M	CW 1200Z
■ Uzbekistan	UI8BAA	7004	1200Z

No Issue Next Week

This issue is the last issue of *The DX Bulletin* this year. Your hard-working editor and staff will take a little time off during the holidays, and will not publish an issue the last week of the year. Also, Issue 519 will be mailed one day later than usual, because I can't get my printer to work on Jan. 1. Meanwhile, office manager Donica Hopkins, circulation manager Amy Ste Marie, and I wish every one of our 9,000 readers a Merry Christmas and a very Happy New Year! Thanks for all your assistance and support over the past year. -Chod Harris VP2ML/WB2CHO.

Longest and Shortest Days

The winter solstice occurs on Dec. 21, and is the shortest 'day' of the year in the northern hemisphere. Winter officially begins at 2122Z on the 21st. However, the longest day of the year comes just 10 days later. The keepers of the world time standards will insert a 'leap second' after 2400Z on Dec. 31, and before 0000Z Jan. 1, 1990. Leap seconds are added every few years because the tidal drag of the moon is slowing the earth's rotation. Without the leap seconds, the world time standards would get out of synchronization with the sun. Spend the extra time wisely.

DX Notes

- Duane Heise AA6EE reports that one *The DX Bulletin* reader who took advantage of his reduced rates for the North American *Callbook* sent in \$24.50 but didn't include a name or address. If you haven't received your order, check with Duane, and describe the method of payment. His address is 16832 Whirlwind, Ramona CA 92065.
- The *Most Complete QSL Managers List Ever Printed*, compiled by SM5CAK and SM5DQC, is available from Bill Early WA9AEA, P.O.Box 401, McHenry IL 60050, for \$25, postpaid. This is the directory *The DX Bulletin* uses to locate QSL routes for many long-past operations, and is very comprehensive. Subscriptions to SM5CAK's monthly QSL information sheet are available direct from Lars Bohm SM5CAK, Stora Angesby, S-59196 Motala, Sweden.

B . A . N . D . P . A . S . S

Key to Bandpass: Callsign, frequency, UTC, day of the month, state. * = long path. P = packet.

All "portable" calls listed with country of operation first, regardless of format used on the air.

RTTY	UD6DC 7009 0123 12 FL	20 Meter SSB	JT1KAI 21255 0330 7 OR
6W6JX 28093 2100 2 OH	UD6DC 7005 1325 7 IA	3C1EA 14215 0722 1 OR	P29SC 21301 0230 2 VA
9K2EC 14082 0400 14 CA	UG6GAW 7006 1255 10 IA	5U7NU 14244 0120 10 RI	TR8JLD 21297 2258 1 IL
9Q5EE 14092 0555 29 PA	UG6GM 7010 1500 2 OR	A41JZ 14160 0040 27 DE	TZ6PD 21282 2144 4 MI
AL7BB 14085 0333 3 PA	UI8BAA 7003 1210 11 WV	A41KN * 14199 1236 7 MA	UA2FEK 21226 1655 11 CA
CO2BB 14093 1340 2 OH	V73AS 7007 1121 10 FL	A41SN 14170 1245 22 DE	XT2KG 21345 1836 9 IL
D44BC 14092 0530 2 PA	V85AA 7003 1046 11 FL	AP2AU 14208 0418 9 NH	XW8DX 21235 0120 14 MA
EA9JV 14084 0235 9 OH	VS6ER 7001 1126 10 FL	AP2MC 14169 0330 4 OR	XW8DX 21235 1350 12 MA
GJ4YMX 28083 1035 2 OH	VU2GAN 7012 0215 5 FL	FKØBN 14170 1106 28 MI	XW8KPL 21295 0000 10 IL
LX1TO 21084 1730 13 MA	VU2TEC 7006 2235 9 RI	FP5DX 14205 0524 30 OR	Y11BGD 21246 1156 14 MA
RL8PYL 14088 0539 2 PA	XT2KG 7001 0058 4 MA	FR5ZD 14250 0312 9 MI	ZD7DP 21225 2128 6 NH
TI2CBJ 14083 0320 7 OH	XT2KG 7000 0606 29 OR	HC8JG 14137 0530 26 ON	10 Meter CW
TU2BB 14091 2055 9 PA	YB3ASQ * 7006 2226 13 FL	JT/ 14250 0325 10 WV	3B8CF 28030 1243 13 NH
UQ1GWW 14081 0300 9 OH	YB6ZAP * 7011 2230 11 FL	RAØAD	3B8DB 28025 1245 6 NH
UZ9CWA 14086 0355 15 CA		JT1BR 14238 0308 10 WV	3B8FQ 28009 1835 4 NH
160 Meters	30 Meters	KC4USX 14320 0547 10 IL	4U1UN 28007 2330 12 FL
CO6CG 1825 0118 12 FL	RT5JD 10123 2133 25 ON	OD5KB 14157 0525 8 CA	5H3TW 28021 1944 10 MT
KH3/KNØE 1832 0530 12 WV		SV5TS 14287 0341 19 ON	6W6JX 28038 2346 14 FL
KX6DC 1833 0636 8 CA		UA10/ 14206 1531 9 CA	6W7OG 28019 1612 6 AZ
V31BB 1833 0258 15 MA		UW1ZC	9J2AL 28023 2014 9 OH
V73AZ 1834 0654 9 WA		UH8YP 14202 0344 10 WV	9L1CM 28000 2310 24 DE
WP4L 1835 2359 5 WI		UH9WWA 14256 0422 3 OR	9V1YC 21026 2330 16 FL
80 Meters		UJ8KA * 14169 1222 7 MA	A41KV 28016 1452 14 FL
9M2AX 3506 1400 9 CA		UJ8KAA 14220 0824 10 MI	A61AC 28015 1303 29 PA
9M2AX 3502 2253 9 IL		UJ9KWC 14240 0323 11 MA	BV2DA 28010 2323 5 PA
EL2FQ 3505 2330 8 NH		UL7JC 14203 0234 11 NH	BV2FA 28021 0143 8 OR
HL1CG 3505 1418 3 MT		UL7NW 14236 0418 10 MI	BZ4WH 28030 0007 12 FL
HSØE * 3506 2259 9 IL		UZØDWD 14256 0421 3 OR	EL7X 28013 1334 8 VA
HZ1AB 3507 0206 7 FL		VU2NR 14221 1155 1 OH	EL7X 28015 2153 6 MI
RB5NC * 3507 1410 15 WA		VU2PB * 14186 1214 8 MA	FH5EJ 28015 1623 12 CA
RL7GA * 3505 1153 9 MA		XW8DX 14195 1628 11 MT	HH2FI 28016 1813 14 FL
RT4UA * 3501 1417 15 WA		ZB2GR 14266 0700 8 CA	JD1YAA 28053 2323 8 PA
RW9HZZ * 3503 1148 4 MA		17 Meter SSB	JY9MO 28031 1343 15 FL
SM6MCW * 3501 1440 8 CA		TU2QQ 18145 1616 12 PA	SV9TJ 28020 1444 2 NY
UR1RWX 3501 0038 14 MA		15 Meter CW	TA3D 28011 1515 7 PA
UW9YV * 3501 1200 11 MA		6W6JX 21013 1958 7 MI	TR8CR 28005 1008 29 HA
VU2IN * 3501 1508 15 WA		9V1WW 21010 0145 8 PA	UI8IAY 28025 1343 14 FL
ZD8IAN 3501 2222 7 NH		9V1YC 21025 2344 12 PA	UR2RHF 28025 1500 8 IL
ZD8VJ 3503 2325 8 NH		BV2B 21011 0155 3 GA	VS6AG 28018 0214 6 MT
75 Meters		BZ1OK 21020 0042 14 FL	VS6BG 28004 0044 10 IL
5T5CK 3797 0400 12 IA		BZ4RA 21037 0028 12 FL	VU2BK 28026 2354 14 FL
7P8EG 3799 0324 10 IL		BZ4RC 21030 0120 8 MA	XT2KG 28010 0948 29 HA
7X4AN 3794 0126 5 MA		BZ4WH 21028 0230 13 MI	XT2KG 28005 1800 8 NH
HZ1AB * 3794 1430 8 CA		EL7X 21011 2309 6 NH	XW8CW 28025 0258 12 CA
KG4SG 3792 1125 1 FL		FP5DX 21020 2245 19 GA	Z23JO 28036 1315 29 HA
KG4SG 3797 2349 3 MA		HL5BDS 21011 0150 28 GA	ZD8VJ 28010 1208 7 NH
OD5VT 3799 2234 5 MA		JT1CD 21016 0355 12 CA	10 Meter SSB
SV5ADM 3799 0013 4 MA		P29Y 21027 2101 10 PA	5W1HM 28486 0104 14 CA
40 Meters		PZ1DY 21023 0145 29 GA	5Z4BH 28530 1400 11 PA
3A2GL 7002 0515 7 IA		PZ1EH 21031 2328 30 NY	BZ4RDX 28546 2345 6 MI
4S7WP 7002 0144 15 FL		TR8JLD 21030 2150 11 CA	EL7X 28445 2228 5 NY
5H3TW 7005 0340 29 OH		UAØDA 21049 0334 5 OR	FH8CB 28779 1813 10 MA
5H3TW 7000 1524 28 OR		UA9ZL 21030 0112 3 OR	FR5ZD 28497 1852 4 NY
5NØELT 7005 2219 14 MA		XT2KG 21016 2037 3 MT	HV3SJ 28500 1709 3 IL
6W1QB 7005 2157 14 MA		XW8CW 21035 0030 13 FL	HZ1AB 28488 1452 4 MS
BV2FA 7004 1529 3 OR		XW8CW 21035 1430 8 NY	KH2D 28492 0033 12 PA
FK8FS 7009 1125 12 FL		YN3CC 21003 1340 13 MA	SV5TS 28522 1416 6 MI
HZ1AB 7000 1521 3 OR		Z21CA 21059 2300 8 NH	TA3F 28579 1545 7 MI
JY9SR 7001 2222 10 FL		Z23JO 21019 1715 9 MA	TZ6VV 28462 2151 6 IL
KG4SM 7021 1138 11 VA		ZD8VJ 21025 0012 13 CA	UG6JJ 28495 1358 11 WV
OY7ML 7004 2241 13 FL		ZS8MI 21052 1704 10 CA	V63AO 28488 0137 3 OR
P29VPY 7005 1241 13 MA		15 Meter SSB	V63JC 28510 2330 1 VA
RA9YY 7004 1055 11 FL		3DAØAV 21349 2138 3 WV	V73AK 28443 0116 24 DE
RW9HZZ 7005 1127 10 FL		6W1AE 21304 2203 29 MI	XT2KG 28508 1347 6 IL
TA1A 7005 2219 11 FL		9X5KP 21209 2033 3 OR	XW8DX 28495 0326 9 CA
TA2AO 7020 0400 7 OH		9X5NH 21291 0235 6 OH	YI1BGD 28530 1338 11 WV
TA4A 7007 2151 12 FL		CN8FC 21220 2005 14 MA	YJØN 28520 0123 12 WV
TK5IU 7006 0150 28 OH		D2/ 21344 2334 30 WV	YN/ 28527 1737 5 IL
UA1O/		LU6ELF	SMØOIG
UB5MAL Novaya Zelmya		HV3SJ 21291 1541 9 WV	Z21HD 21335 1931 10 MA
UC2ADX 7002 1342 11 CA		JT/ 21272 0335 8 OR	Novice Band
		RAØAD	SV9BAI 28107 1505 10 FL
			V31MZ 21112 1423 10 FL

